CLAIMS

1. Method for obtaining, preparing or producing human suppressor T lymphocytes (and/or the precursors thereof), comprising a step of selection, separation or isolation in vitro or ex vivo of human T lymphocytes expressing the THY-1 molecule.

2. Method according to claim 1, comprising :
(a) obtaining a cell population of human origin comprising T lymphocytes, and
(b) recovering T lymphocytes expressing the THY-1 antigen.

3. Method according to claim 1, characterized in that step (b) is preceded or followed by a step of amplification of T lymphocytes.

4. Method according to any one of the previous claims, characterized in that the T lymphocytes expressing the THY-1 antigen are selected, separated, isolated or recovered by means of a ligand specific of THY-1.

5. Method according to claim 4, characterized in that the specific ligand is an antibody specific of THY-1 or a fragment or derivative of said antibody having substantially the same antigenic specificity.

6. Method according to claim 5, characterized in that the specific ligand is a monoclonal or polyclonal antibody specific of THY-1.

7. Method according to claim 5, characterized in that the specific ligand is a polyfunctional, monocatenary or multimeric antibody, specific of THY-1.

8. Method according to claim 4, characterized in that the specific ligand is an aptamer.

9. Method according to any one of claims 4 to 8, characterized in that the ligand is immobilized on a support or placed in solution.

10. Method according to claim 9, characterized in that the support is a column or a bead, preferably a magnetic bead.

11. Method according to any one of claims 4 to 10, characterized in that the ligand is labelled.

12. Method according to claim 11, characterized in that the labelling is carried out by means of a fluorescent, radioactive, luminescent, phosphorescent, chemical or enzymatic detection label.

13. Method according to any one of the previous claims, characterized in that the step of recovery, selection or isolation is carried out by flow cytometry, affinity chromatography, FACS, MACS or D/MACS.

14. Method according to any one of the previous claims, characterized in that the cell population comes from a tissue selected in the group consisting of bone marrow, spleen, liver, thymus, blood which has or has not been previously enriched in T lymphocytes, umbilical cord blood, fetal, infant or adult peripheral blood, a tumor, a site of inflammation, a transplanted organ or a cell culture established with one or another of said tissues.

15. Method for identifying and/or quantifying human suppressor T lymphocytes in a cell population, comprising exposing said cell population to a ligand specific of THY-1 and determining and/or quantifying the formation of a complex between the ligand and the cells, the formation of said complexes indicating the presence and/or the quantity of suppressor T lymphocytes in the cell population.

16. Method for producing a pharmaceutical composition, comprising :

(a) obtaining a biological sample comprising human T lymphocytes,

(b) selecting T lymphocytes expressing the THY-1 antigen in said biological sample, and

(c) conditioning said T lymphocytes expressing the THY-1 antigen in a pharmaceutically acceptable adjuvant or medium.

17. Method for producing a pharmaceutical composition, comprising :

(a) obtaining a biological sample comprising human T lymphocytes,

(b) depleting T lymphocytes expressing the THY-1 antigen from said biological sample, and

(c) conditioning said T lymphocytes not expressing the THY-1 antigen in a pharmaceutically acceptable adjuvant or medium.

18. Use of a ligand specific of the THY-1 antigen in order to select, identify, sort or prepare, in vitro or ex vivo, human suppressor T lymphocytes.

19. Use of a ligand specific of the THY-1 antigen in order to prepare a diagnostic composition intended for the selection, identification or quantification in vivo of human suppressor T lymphocytes.

20. Use of a ligand specific of the THY-1 antigen in order to prepare a therapeutic composition intended for the modification, stimulation or elimination in vivo of human suppressor T lymphocytes.

21. Isolated human T lymphocyte, characterized in that it exhibits suppressor activity and in that it expresses the CD8 or CD4 markers and THY-1.

22. Cell composition comprising at least 50, 60, 70, 80, 85, 90 or 95% of human CD8+/THY-1+ or CD4+/THY-1+ T cells.

23. T lymphocyte according to claim 21, characterized in that it is genetically modified by means of a viral vector.

24. Pharmaceutical composition characterized in that it comprises at least one suppressor T lymphocyte according to any one of claims 21 to 23 and a pharmaceutically acceptable adjuvant or medium.

25. Use of a T lymphocyte or a population of T lymphocytes according to any one of claims 21 to 23 for preparing a composition intended to implement a therapeutic method.

26. Use according to claim 25, characterized in that the composition is intended to be used as a vaccine.

27. Use according to claim 25 for preparing a composition intended for the treatment of a tumor, an autoimmune disease, an allergy, graft-versus-host disease, an inflammatory disease, type 1 diabetes, a viral or bacterial infection, for immune reconstitution or for induction of tolerance in the event of stem cell, tissue or organ transplantation in a mammal.

28. Kit for the isolation or characterization of human suppressor T lymphocytes comprising a ligand specific of THY-1, placed in solution or on a support, and, optionally, reagents for detection of the ligand.